

24th World Nursing and Healthcare Conference

September 13-15, 2018 | Copenhagen, Denmark

Assessment of carcinogens in foods packaged in polyvinylchloride containers in kano state, Nigeria

Sanusi Rahmat Adejumo
Bayero University Kano, Nigeria

Cancer is becoming ubiquitous in developing countries at the moment. The etiology of cancer, though unknown, lifestyle habits including food consumption of the people have been implicated in its origin. The type of food consumed, mode of preparation as well as methods of packaging have lots of implications on human health. To sensitize people in the community on the dangers inherent in packaging foods in plastic and styrofoam containers, the study was conducted among food vendors in Kano state, Nigeria. Rice were purchased from two food vendors and these were taken to the laboratory for analysis. Through experimental design method, leaching of carcinogens into foods packaged in PVC containers were assessed. Two food vendors were selected and twenty four (24) food samples were bought from each of them. From each food vendor, twelve (12) food samples were fatty foods (Jollof rice), while twelve (12) were non-fatty (white rice). Styrofoam, plastic and ceramic plates were used for the study. Two carcinogens (phthalate and nonylphenol) that are used as additives in plastic production were assessed for possible leaching into foods that are packaged in plastic containers. The experiment was carried out through the use of gas chromatophy mass spectrometer (GC-MS). Data were analyzed by descriptive statistics using frequency tables. The results showed that all food samples served in ceramic plates from both food vendors do not contain the carcinogens. Phthalates were present in all the food samples obtained from both food vendors served in both styrofoam and plastic plates. However, the quantities of these phthalates found in fatty food samples were more than non-fatty food samples. Nonylphenols were not found in non-fatty food samples served in both styrofoam and plastic plates. Considerable quantities of nonylphenols were found in fatty food samples served in both styrofoam and plastic plates. Also, the quantities of both phthalates and nonylphenols found in styrofoam plates were discovered to be more in quantity than the ones found in plastic plates. Based on the findings of the study, it was concluded that phthalates do leach into foods served in styrofoam and plastic food containers whether they contain oil or not. Nonylphenol also do leach into styrofoam and plastic food containers when used to package fatty foods.

Biography

Sanusi R. Adejumo is a registered nurse, registered midwife, registered public health nurse and finished her Bachelor of Nursing science (BNSc) from Ladoké Akintola University of Technology (LAUTECH), Ogbomoso, Oyo State, Nigeria. She has worked for some years in the hospital setting for some years before joining the university. She has published papers in reputable journals.

Notes: